

In the Claims:

Please cancel claims 1-47 without prejudice. Please add new claims 48-61 as follows:

48. (New) A method for use in a scanning beam display of producing an image in response to image data that represent desired pixels, each desired pixel having a respective desired pixel location, comprising the steps of:

emitting a beam of light;

resonantly scanning the light along a first axis at a first frequency through a series of actual pixel locations;

for each actual pixel location identifying a plurality of desired pixel locations corresponding to the actual pixel location;

determining for each of the identified pluralities of desired pixel locations a corresponding set of weighted data as a function of the first frequency and the image data for the respective desired pixel location; and

modulating the beam of light according to the weighted data, when the beam of light is aligned with the corresponding actual pixel location.

49. (New) The method of claim 48 wherein the step of for each actual pixel location identifying a plurality of desired pixel locations corresponding to the actual pixel location includes identifying a first desired pixel location immediately preceding the actual pixel location and identifying a second desired pixel location immediately following the actual pixel.

50. (New) The method of claim 49 wherein the step of determining for each of the identified pluralities of desired pixel locations a corresponding set of weighted data as a function of the first frequency and the image data for the respective desired pixel location includes calculating a weighted average of the image data corresponding to the first and second desired pixel locations.

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51. (New) The method of claim 48 further including scanning the beam of light along a second axis substantially orthogonal to the first axis.

52. (New) The method of claim 49 wherein determining for each of the identified pluralities of desired pixel locations a corresponding set of weighted data as a function of the first frequency and the image data for the respective desired pixel location includes clocking data out of a memory buffer.

53. (New) A method of producing an image for viewing in response to a set of data representing pixels of an image, each pixel having a respective pixel location in a two dimensional matrix, comprising the steps of:

storing the data representing the pixels in a memory device;

emitting a light beam from a first position;

resonantly scanning the emitted light beam about at least one axis in a selected two dimensional scan pattern;

identifying a series of substantially equally spaced pixel times each corresponding to a respective location in the two dimensional scan pattern; and

for each of the identified substantially equally spaced pixel times, determining a corresponding weighted average of a plurality of the data; and

at each identified substantially equally spaced pixel times, modulating the light beam according to the determined corresponding weighted average.

54. (New) The method of claim 53 wherein the memory device is a two dimensional buffer.

55. (New) The method of claim 53 wherein modulating the light beam according to the determined corresponding weighted average includes gamma correcting the corresponding weighted average.

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56. (New) The method of claim 53 wherein emitting a light beam from a first position includes driving a light emitting diode with a driving current.

57. (New) The method of claim 56 wherein modulating the light beam according to the determined corresponding weighted average includes modulating the driving current.

58. (New) A method of producing a resonantly scanned image, comprising the steps of:

storing data representing a rectilinear set of pixels in a buffer;

for each line in the image, clocking the stored data out of the buffer at a set of equally spaced clocking times;

for each of the clocking times determining a location in a resonant scanning pattern; and

for each of the clocking times, calculating a pixel intensity that is a weighted average of a plurality of the clocked out stored data; and

substantially at each of the clocking times, emitting a beam of light that is modulated according to the corresponding calculated pixel intensity.

59. (New) The method of claim 58 further including sweeping the beam of light through the resonant scanning pattern.

60. (New) The method of claim 59 wherein sweeping the beam of light through the resonant scanning pattern includes redirecting the beam of light with at least one resonantly driven mirror.

61. (New) The method of claim 58 wherein emitting a beam of light that is modulated according to the corresponding calculated pixel intensity includes gamma correcting the calculated pixel intensity.